

REMARKS/ARGUMENTS

Claims 1-57 were previously canceled, and claims 59-60 and 65-67 have been canceled with this response. Claims 58 and 61-64 are currently pending in the application.

35 U.S.C. § 112

Claims 58-65 and 67 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. With respect to independent claim 58, the examiner avers that the features “three open sides...opening therein” in lines 5-6, and the features “three open sides...plug contact” in lines 9-15 were not disclosed in the original specification. The examiner further avers that the features recited in claims 59-65 were not disclosed in the original specification. Applicants disagree because the text of the specification and the drawings clearly “describe” these features in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants would first like to review the state of the law regarding the written description requirement under 35 U.S.C. § 112, first paragraph. The Patent & Trademark Office Board of Appeals and the Federal Circuit both dismiss the requirement for literal support, and recognize that the drawings included in an application can provide the written description support for claimed features:

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. *In re Edwards*, 568 F.2d 1349, 196 U.S.P.Q. (BNA) 465 (CCPA 1978); *In re Herschler*, 591 F.2d 693, 200 U.S.P.Q. (BNA) 711 (CCPA 1979). The content of the drawings may also be considered in determining compliance with the written description requirement. *In re Barker*, 559 F.2d 588, 194 U.S.P.Q. (BNA) 470 (CCPA 1977).

In re Walter Kaslow and Uniform Product Code Counsel, Inc. 707 F.2d 1366 (Fed. Cir. 1983). Moreover, the drawings alone may satisfy the written description requirement. *See, e.g., Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc.*, 291 F.3d 1317, 1322 (Fed. Cir. 2002) (“In *Vas-Cath*, we held that ‘under proper circumstances, drawings alone may

provide a ‘written description’ of an invention as required by § 112.’”); *In re Robert M. Hunter*, 1995 U.S. App. LEXIS 15363, *14-15 (Fed. Cir. 1995) (“Depending on the facts of each particular case, one may satisfy the written description requirement using, for example, drawings, tables, equations, and formulas, alone or in combination.”). Accordingly, the drawings can play an important, even primary, role in assessing whether the written description requirement has been satisfied.

Turning now to the claim features identified by the examiner as allegedly not having written description support, claim 58 recites, *inter alia*, “receptacle contact comprising a substantially U-shaped electrically conductive body defined by three open sides and three closed sides, at least one of the three closed sides having a receptacle contact heat dissipation opening therein;...plug contact comprising: i) a substantially U-shaped electrically conductive body defined by three open sides and three closed side, at least one of the three closed sides having a plug contact heat dissipation opening therein”.

Figure 3 illustrates one embodiment of a receptacle contact, in accordance with the present invention, comprising a U-shaped electrically conductive body defined by three open sides and three closed side. As shown and described, two of the three closed sides (the opposed sides of a U) are provided by opposed side walls 50 and 52 (*see* page 5), and the third closed side (connecting the opposed sides of the U) is provided by one or more bridging elements, for example, bridging elements 72 and 74 (*see* page 6) which connect side walls 50 and 52. In the embodiment shown in Figure 3 (and other figures), an opening is created by virtue of the two spaced apart bridging elements 72 and 74.¹ As referenced throughout the specification, improved heat dissipation is provided by contact and connector embodiments of the present invention through various product features and overall product configurations (*see, e.g.*, the abstract: “[t]he open structure of both the receptacle and plug contacts enhances heat dissipation”). The specification states that heat loss by convection can occur from interior surfaces of the side walls (e.g., 50 and 52 in Figure 3). Such heat loss can then dissipate through the opening between the two spaced apart bridging elements 72 and 74 in Figure 3. Thinking of a three-dimensional U-shaped body and looking at the receptacle contact shown in Figure 3, the recited three open sides are defined by unconnected edges of

¹ One of ordinary skill in the art would readily appreciate that “openings” can be created in other ways besides employing spaced apart bridging or connecting elements.

side walls 50 and 52. That is, the front, back and bottom of the receptacle contact shown in Figure 3 represent the three open sides. Plug contacts having similar features as discussed above, are likewise depicted in the figures (*see, e.g.*, Figure 21) and described in the specification.

Regarding claims 61 and 62, the figures clearly show at least two terminals extending from bottom edges of the opposed contact walls (or “two of the closed sides”). Claims 63 and 64 recite heat dissipation openings in connector housings that are in fluid communication with the heat dissipation openings in corresponding power receptacle and plug contacts, disposed in the connector housings, as discussed in relation with claim 58 above. By way of example, Figure 23 shows a plug connector embodiment having an insulative housing comprising openings 298. The specification states, on page 12, that “[o]penings 298 can also provide air flow passages for enhancing heat dissipation.” Figure 24 shows a receptacle connector embodiment having an insulative housing comprising similar openings 306. As can be seen in Figure 23a, the plug contact heat dissipation opening (between the spaced apart bridging elements) is in fluid communication with openings 298 in the connector housing. This configuration allows for heat to dissipate from the interior surfaces of the contact sidewalls, up through the contact heat dissipation opening, and then out of the connector through the housing heat dissipation opening.

In view of the foregoing, Applicants respectfully submit that the text and figures of the specification would reasonably convey to one skilled in the art that they, at the time the application was filed, had possession of the claimed invention. Reconsideration and withdrawal of the Section 112 rejection are earnestly solicited.

35 U.S.C. § 102

Claims 58, 63, 64 and 67 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Davis et al. (843). Applicants respectfully disagree because the Davis reference fails to disclose all of the recited features.

The examiner states that Davis discloses a U-shaped conductive receptacle and plug 6. Applicants submit however, that none of the closed sides of each of the contacts (defined by their U-shaped configuration) has a heat dissipation opening, as is recited in the pending claims. The Davis reference instead teaches heat dissipation solely through increased contact

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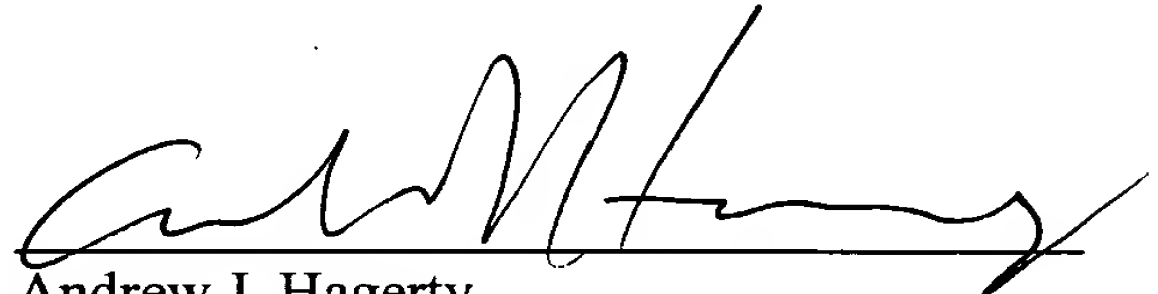
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surface area and mass. (*See, e.g.*, col. 2, lns. 39-41). Since the Davis reference does not teach or suggests all of the recited features, claims 58, 63 and 64 are patentably distinct from the reference. Withdrawal of the Section 102 rejection accordingly is requested.

35 U.S.C. § 103

Claim 66 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Japan 9-55245. Applicants have canceled claim 66, thereby obviating this rejection of record.

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